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ABSTRACT

This document, which is intended for use by community and junior colleges throughout Mississippi, contains curriculum frameworks for the course sequences in the dental hygiene technology program. Presented in the introductory section are a description of the program and suggested course sequence. Section I lists baseline competencies. Section II consists of the curriculum guides for three categories of courses: (1) dental hygiene techology courses--fundamentals of dental hygiene; dental anatomy; head and neck anatomy; radiology; dental hygiene seminars I-IV; clinical dental hygiene I; oral histology and embryology; clinical dental hygiene II; periodontics; materials; general/oral pathology; dental pharmacology; clinical dental hygiene III; community dental health; and dental ethics/law; (2) related vocational-technical course--fundamentals of microcomputer applications; and (3) related academic courses--English composition I and II; oral communications (principles of speech); anatomy and physiology I and II; microbiology; introduction to chemistry; general chemistry I and laboratory I; general psychology I; introduction to sociology I; principles of nutrition; nutrition; personal and community health; first aid and cardiopulmonary resuscitation; college algebra; and introduction to computer concepts. Each course outline contains some/all of the following: course name and abbreviation; course classification; course description; prerequisites; and competencies and suggested objectives. Recommended tools and equipment are listed in section III. Appended are lists of related academic topics and workplace skills for the 21st century and student competency profiles for both courses. (YLB)

ED 397 288

Mississippi Curriculum Framework for Dental Hygiene Technology

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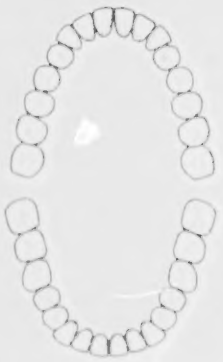

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1996

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July 30, 1996

MISSISSIPPI

CURRICULUM FRAMEWORK

FOR

DENTAL HYGIENE TECHNOLOGY

(PROGRAM CIP: 51.0602 - Dental Hygienist)

POSTSECONDARY PROGRAMS 1996

July 30, 1996

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FOREWORD

In order to survive in today's global economy, businesses and industries have had to adopt new practices and procedures. Total quality management, statistical process control, participatory management, and other concepts of high performance work organizations are practices by which successful companies survive. Employers now expect their employees to be able to read, write, and communicate effectively; solve problems and make decisions; and interact with the technologies that are prevalent in today's workplace. Vocational-technical education programs must also adopt these practices in order to provide graduates who can enter and advance in the changing work world.

The curriculum framework in this document reflects these changes in the workplace and a number of other factors that impact on local vocational-technical programs. Federal and state legislation calls for articulation between high school and community college programs, integration of academic and vocational skills, and the development of sequential courses of study that provide students with the optimum educational path for achieving successful employment. National skills standards, developed by industry groups and sponsored by the U. S. Departments of Education and Labor, provide vocational educators with the expectations of employers across the United States. All of these factors are reflected in the framework found in this document.

Each postsecondary program of instruction consists of a program description and a suggested sequence of courses which focus on the development of occupational competencies. Each vocational-technical course in this sequence has been written using a common format which includes the following components:

- Course Name - A common name that will be used by all community/junior colleges in reporting students.

- Course Abbreviation - A common abbreviation that will be used by all community/junior colleges in reporting students.

- Classification - Courses may be classified as:
  - Vocational-technical core - A required vocational-technical course for all students.
  - Vocational-technical elective - An elective vocational-technical course.
  - Related academic course - An academic course which provides academic skills and knowledge directly related to the program area.
  - Academic core - An academic course which is required as part of the requirements for an Associate degree.

- Description - A short narrative which includes the major purpose(s) of the course and the recommended number of hours of lecture and laboratory activities to be conducted each week during a regular semester.

- Prerequisites - A listing of any prerequisite courses that must be taken prior to or on enrollment in the course.

- Competencies and Suggested Objectives - A listing of the competencies (major concepts and performances) and of the suggested student objectives that will enable students to demonstrate mastery of these competencies.

The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:

- The content of the courses in this document reflects approximately 75 percent of the time allocated to each course. For example, in a four semester hour course consisting of 30 hours lecture and 120 hours of laboratory activities, approximately 22 hours of lecture and 90 hours of lab should be taken by the competencies and suggested objectives identified in the course framework. The remaining 25 percent of each course should be developed at the local district level and may reflect:
  - Additional competencies and objectives within the course related to topics not found in the State framework, including activities related to specific needs of industries in the community college district.
  - Activities which develop a higher level of mastery on the existing competencies and suggested objectives.
  - Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed/revised.
  - Activities which implement components of the Mississippi Tech Prep initiative, including integration of academic and vocational-technical skills and coursework, school-to-work transition activities, and articulation of secondary and postsecondary vocational-technical programs.
  - Individualized learning activities, including worksite learning activities, to better prepare individuals in the courses for their chosen occupational area.

- Sequencing of the course within a program is left to the discretion of the local district. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors.

- Programs that offer an Associate of Applied Science degree must include a minimum 15 semester credit hour academic core. Specific courses to be taken within this core are to be determined by the local district. Minimum academic core courses are as follows:
  - 3 semester credit hours — Math/Science Elective
  - 3 semester credit hours — Written Communications Elective
  - 3 semester credit hours — Oral Communications Elective
  - 3 semester credit hours — Humanities/Fine Arts Elective
  - 3 semester credit hours — Social/Behavioral Science Elective

  It is recommended that courses in the academic core be spaced out over the entire length of the program, so that students complete some academic and vocational-technical courses each semester. Each community/junior college has the discretion to select the actual courses that are required to meet this academic core requirement.

- In instances where secondary programs are directly related to community and junior college programs, competencies and suggested objectives from the high school programs are listed as Baseline Competencies. These competencies and objectives reflect skills and knowledge that are directly related to the community and junior college vocational-technical program. In adopting the curriculum framework, each community and junior college is asked to give assurances that:
  - students who can demonstrate mastery of the Baseline Competencies do not receive duplicate instruction, and
  - students who cannot demonstrate mastery of this content will be given the opportunity to do so.

- The roles of the Baseline Competencies are to:
  - Assist community/junior college personnel in developing articulation agreements with high schools, and
  - Ensure that all community and junior college courses provide a higher level of instruction than their secondary counterparts

- The Baseline Competencies may be taught as special "Introduction" courses for 3-6 semester hours of institutional credit which will not count toward Associate degree requirements. Community and junior colleges may choose to integrate the Baseline Competencies into ongoing courses in lieu of offering the "Introduction" courses or may offer the competencies through special projects or individualized instruction methods.

- Technical elective courses have been included to allow community colleges and students to customize programs to meet the needs of industries and employers in their area.

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PROGRAM DESCRIPTION

DENTAL HYGIENE TECHNOLOGY

The Dental Hygiene Technology Program is a general education and clinical dental hygiene experience to prepare one for a career in the dental hygiene profession. All phases of dental hygiene education are covered and practiced by clinical experience. CPR-C is a prerequisite for the program. The curriculum requires a minimum of 81 semester hours of study. The program requires 51 hours of dental hygiene courses and 30 academic hours leading to an Associate Degree in Dental Hygiene. A graduate will be eligible to take the examination of the National Board of Dental Examiners as well as individual state board examinations for dental hygiene.

The vocational-technical courses in the following list are required in the Dental Hygiene Technology curriculum:

- 5 semester credit hours (sch) Fundamentals of Dental Hygiene
- 4 sch Dental Radiology
- 5 sch Clinical Dental Hygiene I
- 2 sch Dental Anatomy
- 2 sch Head and Neck Anatomy
- 3 sch Dental Hygiene Materials
- 2 sch Oral Histology and Embryology
- 5 sch Clinical Dental Hygiene II
- 3 sch Periodontics
- 2 sch Dental Pharmacology
- 6 sch Clinical Dental Hygiene III
- 3 sch Community Dental Health
- 2 sch Dental Ethics/Law
- 4 sch Dental Hygiene Seminar I, II, III, IV
- 3 sch General/Oral Pathology

The following academic courses are required in the Dental Hygiene Technology curriculum:

- 3 sch Introduction to Chemistry (CHE 1113 or 1213)
- 3 sch Written Communications Elective
- 4 sch Microbiology (BIO 2923 or 2924)
- 3 sch Social/Behavioral Science Elective (PSY 1513)
- 3 sch Humanities/Fine Arts Elective
- 3 sch Math/Natural Science Elective (BIO 1513)
- 3 sch Oral Communications Elective
- 3 sch Anatomy and Physiology II (BIO 1523)
- 3 sch Principles of Nutrition (HEC 1233 or 1253)
- 3 sch Introduction to Sociology I (SOC 2113)

DENTAL HYGIENE TECHNOLOGY

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Dental Hygiene Technology**

FIRST YEAR

5 sch	Fundamentals of Dental Hygiene (DHT 1115)	3 sch	Anatomy and Physiology II (BIO 1523)
2 sch	Dental Anatomy (DHT 1212)	5 sch	Clinical Dental Hygiene I (DHT 1415)
4 sch	Dental Radiology (DHT 1314)	3 sch	Microbiology (BIO 2923 or 2924)
1 sch	Dental Hygiene Seminar I (DHT 1911, 1921, 2911, 2921)	3 sch	Periodontics (DHT 1513)
		1 sch	Dental Hygiene Seminar II (DHT 1921)
3 sch	Math/Science Elective (Anatomy and Physiology I BIO 1513)	2 sch	Oral Histology and Embryology (DHT 1232)
3 sch	General Chemistry Survey (Basic) (CHE 1113 or 1214)	2 sch	Head and Neck Anatomy (DHT 1222)
18 sch		19 sch	

SUMMER TERM

3 sch	Written Communications Elective
3 sch	Social/Behavioral Science Elective
3 sch	Humanities/Fine Arts Elective
3 sch	Introduction to Sociology I (SOC 2113)
12 sch	

SECOND YEAR

5 sch	Clinical Dental Hygiene II (DHT 2425)	6 sch	Clinical Dental Hygiene III (DHT 2436)
3 sch	Dental Hygiene Materials (DHT 2613)	3 sch	Community Dental Health (DHT 2813)
3 sch	General/Oral Pathology (DHT 2233)	2 sch	Dental Ethics/Law (DHT 2122)
3 sch	Principles of Nutrition (HEC 1233) or Nutrition (HEC 1253)	3 sch	Oral Communications Elective
2 sch	Dental Pharmacology (DHT 2712)	1 sch	Dental Hygiene Seminar IV (DHT 2941)
1 sch	Dental Hygiene Seminar III (DHT 2931)	15 sch	
17 sch			

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

** Baseline competencies are taken from the high school Allied Health program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

APPROVED ELECTIVES FOR DENTAL HYGIENE TECHNOLOGY

English Composition I (ENG 1113)
English Composition II (ENG 1113)
Oral Communications (Principles of Speech) (SPT 1113)
Anatomy and Physiology I (BIO 1513 or 1514)
Anatomy and Physiology II (BIO 1523 or 1524)
Microbiology (BIO 2923 or 2924)
Introduction to Chemistry (CHE 1113)
General Chemistry I (CHE 1213)
General Chemistry Laboratory I (CHE 1211)
College Algebra (MAT 1313)
General Psychology I (PSY 1513)
Introduction to Sociology (SOC 1113)
Principles of Nutrition (HEC 1233)
Nutrition (HEC 1253)
Personal and Community Health I (HPR 1213)
First Aid and CPR (HPR 2213)
Introduction to Computer Concepts (CSC 1113)
Fundamentals of Microcomputer Applications (CPT 1113)

SECTION I:

BASELINE COMPETENCIES

FOR

DENTAL HYGIENE TECHNOLOGY

BASELINE COMPETENCIES FOR POSTSECONDARY DENTAL HYGIENE TECHNOLOGY PROGRAMS

The following competencies and suggested objectives are taken from the publication *Mississippi Curriculum Framework for Allied Health*. These competencies and objectives represent the baseline which was used to develop the community/junior college Dental Hygiene Technology courses. Students enrolled in postsecondary courses should either (1) have documented mastery of these competencies, or (2) be provided with these competencies before studying the advanced competencies in the Dental Hygiene Technology program.

Baseline competencies may be integrated into existing courses in the curriculum or taught as special "Introduction" courses. The "Introduction" courses may be taught for up to six semester hours of institutional credit and may be divided into two courses. If the Baseline Competencies are to be taught as "Introduction" courses, each course should be at least 3 credit hours. The following course number(s) and description should be used:

Course Name(s): Introduction to Dental Hygiene Technology, Introduction to Dental Hygiene Technology I, or Introduction to Dental Hygiene Technology II

Course Abbreviation(s): DHT 100(3-6), DHT 1013, DHT 1023

Classification: Vocational-Technical Core

Description: These courses contain the baseline competencies and suggested objectives from the high school curriculum which directly relate to the community college program. The courses are designed for students entering the community college who have had no previous training or documented experience in the field. (3-6 semester hours based upon existing skills for each student. May be divided into 2 courses for a maximum total of 6 hours of institutional credit.)

Competencies and Suggested Objectives:

1. Review material related to course and professional organizations.
   a. Identify student and course expectations.
   b. Identify allied health professional student organizations.
   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP2
2. Apply communications in health care.
   a. Identify the three main factors required for the communication process.
   b. Utilize effective communication skills.

Related Academic Topics (See Appendix A): C1, C6
Workplace Skills (See Appendix B): WP2, WP3

3. Develop individual career awareness in the health care industry.
   a. Describe careers in the dental field.

   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP2
4. Explain professional ethics and legal responsibility.
   a. Explain professional ethics and legal responsibility including negligence, malpractice, and health occupation code of conduct.
   b. Define confidentiality.
   c. Identify and explain the rules of ethics.

   Related Academic Topics (See Appendix A): C1, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3
5. Utilize universal precautions.
   a. Explain importance of universal precautions in life practices and health care.
   b. Explain the state and federal government's role in universal precautions.
   c. Relate universal precautions to the transmission of infectious diseases including HIV, AIDS, HBV, and TB.
   d. Demonstrate hand-washing technique.
   e. Demonstrate donning and removing clean gloves.

   Related Academic Topics (See Appendix A): C1, C4, C6
   Workplace Skills (See Appendix B): S8
6. Recognize safety procedures and policies.
   a. Describe basic safety procedures.
   b. Describe accident prevention methods and disaster plans.
   c. Follow facility policies.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2
7. Perform basic safety procedures.
   a. Assist with basic emergency procedures to include falls, seizures, and fainting.
   b. Attain Class C certification in cardiopulmonary resuscitation.
   c. Demonstrate procedures of first aid for sudden illness and accidents.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2, WP6
8. Recognize and use medical terminology.
   a. Demonstrate the use of medical references to spell medical terms correctly.
   b. Spell designated medical terms correctly.
   c. Define and divide medical terms into root words, prefixes, and suffixes.
   d. Interpret the common medical abbreviations and symbols including meanings, and uses.

e. Demonstrate the use of medical terms and abbreviations in reading, speaking, interpreting, and writing simulated medical records.

Related Academic Topics (See Appendix A): C1, C4, C5, C6, S1, S8
Workplace Skills (See Appendix B): WP2, WP4

9. Recognize the structure and functions of each organ system and apply related basic skills.
   a. Interpret the basic organization of the body.
   b. Interpret the basic structures and functions of the integumentary system.
   c. Interpret the basic structures and functions of the musculoskeletal system.
   d. Interpret the basic structures and functions of the circulatory system.
      (1) Define, locate, and check the four main vital signs.
   e. Interpret the basic structures and functions of the respiratory system.
   f. Interpret the basic structures and functions of the digestive system.
   g. Interpret the basic structures and functions of the nervous system.

   Related Academic Topics (See Appendix A): C1, C2, C5, C6, M4, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP4

10. Assess dental health careers by utilizing medical terminology and basic skills in exploring specific dental careers.
   a. Interpret basic dental abbreviations and symbols by charting accurately.
   b. Interpret and spell dental terminology including breakdown by prefixes, suffixes, and root words.
   c. Demonstrate brushing and flossing teeth according to currently approved practice.
   d. Differentiate between the dentition of the child and adult including primary and secondary dentition.
   e. Compare the location, structure, and function of three types of teeth including incisors, molars, and cuspids.
   f. Demonstrate dental charting using the Universal Method and basic dental charting guidelines.
   g. Recognize methods of prevention and detection of caries and periodontal disease according to established dental guidelines.
   h. Discuss chairside assistance and treatment room maintenance within basic chairside techniques.
   i. Set up a basic dental tray for initial patient examination.
   j. Interpret the correct usage for three types of dental instruments found within dentistry.
   k. Cite three types of restorative materials found in dental laboratories.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M4, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3

SECTION II:

CURRICULUM GUIDE

FOR

DENTAL HYGIENE TECHNOLOGY

DENTAL HYGIENE TECHNOLOGY COURSES

Course Name: Fundamentals of Dental Hygiene

Course Abbreviation: DHT 1115

Classification: Vocational-Technical Core

Description: This course will provide the dental hygiene student with fundamental knowledge and skills necessary to begin actual clinical treatment of clients. The lecture portion will focus on the history, philosophy, and theories relevant to the dental hygiene profession. The preclinical portion will focus on the development of the psychomotor skills necessary for the delivery of dental hygiene services. (5 sch: 2 hr. lecture, 6 hr. lab)

Prerequisites: None

Competencies and Suggested Objectives:

1. Discuss the history, philosophy, and theories relevant to the dental hygiene profession.
   a. Define, in writing and through conversation, medical and dental terminology.
   b. Apply professional practices/behaviors and utilize the ethics of the profession of dental hygiene.
   c. Appreciate and demonstrate knowledge concerning the historical movement that precipitated the profession of dental hygiene.
   d. Assess the need for procedures involved in maintaining, cleaning, and operating dental equipment.
   e. Explain the rationale behind operatory and office aseptic techniques.
   f. Analyze the need for examination and scaling instruments.
   g. Explain the rationale behind manual and motor-driven polishing procedures.
   h. Recognize signs and symptoms manifested by patients in an emergency situation.
   i. Assess the rationale behind and importance of operator expertise in answering client questions.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M4, S1, S2, S8

   Workplace Skills (See Appendix B): WP2, WP5, WP6
2. Develop psychomotor skills necessary for the delivery of dental hygiene services.
   a. Demonstrate the ability to operate the dental chair and other operatory equipment, and to position the patient and self to obtain maximum visibility, accessibility, and comfort.
   b. Demonstrate operatory and office aseptic techniques.

c. Maintain, clean, and lubricate the clinical equipment used in the dental hygiene clinic.
d. Sterilize or disinfect specific clinical materials, equipment, and instruments.
e. Take accurate vitals on a patient, interpret the rationale behind correct recording of findings, and recognize deviations from the norm.
f. Do a complete intraoral and extraoral examination using palpation and visual detection for abnormalities and record appropriately on charts.
g. Note intraoral and extraoral manifestations on clinical charts.
h. Apply emergency procedures given specific emergency situations.
i. Formulate an appropriate, sequential treatment plan for individual patients with individual needs based on the results of data gathered during charting procedures.
j. Demonstrate use of examination and scaling instruments.
k. Practice manual and motor-driven polishing procedures.

Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, M5, S1, S2, S5, S8

Workplace Skills (See Appendix B): WP2, WP3, WP5, WP6

3. Recognize basic etiology of dental disease, related treatment, and preventive measures.
   a. Recognize, list, and explain basic constituents and the appearance of plaque and dental calculus, and its effect on the dental health of the client.
   b. Identify types, causes, and possibilities for removal of specific stains and accretions.
   c. Accurately evaluate need and properly apply procedures necessary for the dental prophylaxis polishing techniques (materials, methods, and equipment).
   d. Counsel patients on available sources of fluoride for use as a dental disease preventive.
   e. Accurately demonstrate all topical fluoride techniques.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, S1, S2, S8

   Workplace Skills (See Appendix B): WP2, WP3, WP5, WP6

Course Name: Dental Anatomy

Course Abbreviation: DHT 1212

Classification: Vocational-Technical Core

Description: A study of the morphological characteristics of the teeth and supporting structures. (2 sch: 2 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Explain dentition and its related structures.
   a. Describe and discuss dentition and its related structures with correct terminology and nomenclature.
   b. Describe the physiological form and function of the teeth.
   c. Acquire basic knowledge of tooth tissues, the exfoliation and eruption of teeth, tooth contact and alignment in the arch, and tooth relationship to the supporting structures; and utilize these concepts in clinical practice.
   d. Differentiate between normal occlusion and malocclusion in relation to intercusping and interdigitation during both centric relationships and excursions of the mandible.
   e. Identify the individual tooth, deciduous and permanent, in a clinical environment by identifying natural specimens in laboratory exercises so designated.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M1, M2, S1
   Workplace Skills (See Appendix B): WP2, WP6

July 30, 1996

Course Name: Head and Neck Anatomy

Course Abbreviation: DHT 1222

Classification: Vocational-Technical Core

Description: A detailed study of skeletal, muscular, vascular, and neural features of the face, head, and neck. (2 sch: 2 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Explain the skeletal, muscular, vascular, and neural features of the face, head, and neck.
   a. Identify, by their position and relationship to one another, the bones which make up the head, spine, face, and neck.
   b. Identify the sutures, openings, foramina, and canals relating to the bones that make up the head, spine, face, and neck.
   c. Identify the location and actions of the muscles of mastication, the hyoid muscles, and the sternocleidomastoid muscles.
   d. Trace the blood supply to and from structures in the head and neck, the nerve supply, and the lymphatic drainage from these structures.
   e. Identify the structures relating to the temporomandibular joint, the salivary system, the nasal cavity, and the paranasal sinuses.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M1, M2, S1
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Dental Radiology

Course Abbreviation: DHT 1314

Classification: Vocational-Technical Core

Description: This course involves a broad scope of study of radiology and its use by the dentist as a diagnostic aid. Also covered are techniques for making radiographs with safety for hygienist and patient, the processing and mounting of exposed film and their interpretation, and the study of anatomical landmarks evident in periapical films. (4 sch: 3 hr. lecture, 2 hr lab)

Prerequisites: None

Competencies and Suggested Objectives:

1. Explain and apply the theory and scope of radiology as related to dental hygiene.
   a. Identify landmarks of the skull, maxilla, and mandible that are significant to the correct interpretation of dental radiographs.
   b. Produce radiographic exposures according to stated criteria in regard to safety to both operator and patient, including the use of film holders.
   c. Prepare radiographs that are of satisfactory diagnostic quality including periapical (adult and pedo), bitewing, and occlusal.
   d. Utilize extraoral radiographical techniques.
   e. Observe, interpret, and evaluate radiographs in regard to the normal and abnormal.
   f. Use and evaluate manual and automatic processors.
   g. Understand and demonstrate correct techniques of film duplication.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M1, M2, M4, S1, S6, S8

   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: Dental Hygiene Seminar I, II, III, IV

Course Abbreviation: DHT 1911, DHT 1921, DHT 2931, DHT 2941

Classification: Vocational-Technical Core

Description: This course provides group assembly on a regular basis. Topics include managing dental office emergencies, professional development, dental disciplines, and a comprehensive review for the registry exam. (1 sch: 1 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Provide fundamental knowledge and skills needed to manage dental office emergencies.
   a. State general measures the dental hygienist should know in order to respond to emergency situations.
   b. State the signs, symptoms, and treatment (including drugs) for selected common emergencies.
      (1) cardiac arrest
      (2) angina pectoris
      (3) acute myocardial infraction
      (4) convulsions
      (5) syncope
      (6) asthma
      (7) anaphylactic shock
      (8) apnea
      (9) hypoglycemia
   c. List the equipment required to treat selected emergencies and explain rationale for the inclusion of each item.
   d. Give the names and potential uses of the drugs required in an emergency kit for the dental office.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M4, M7, S1, S5, S8

   Workplace Skills (See Appendix B): WP2, WP3, WP5
2. Develop leadership skills.
   a. Develop progressive leadership skills.
   b. Establish realistic professional goals.
   c. Develop the ability to utilize group dynamics as a means of enhancing professional growth.
   d. Develop rapport with allied health professionals through participation in professional activities of common interest.

e. Become informed of professional activities through participation in the seminar.
f. Participate in activities to safeguard the common interest of the members of the dental hygiene profession.
g. Participate in activities for the improvement of the health of the public.

Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6
Workplace Skills (See Appendix B): WP2, WP3, WP6

3. Develop knowledge of the different disciplines of dentistry.
   a. List and discuss the various disciplines in dentistry.
   b. Critique presentations of members of the dental specialties.
   c. Discover other opportunities in the dental field.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, S1, S2, S5, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6
4. Review written registry exam format.
   a. Complete mock exams.
   b. Discuss exam content areas.
   c. Discuss test taking strategies.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M3, M4, M5, M6, M7, S1, S2, S5, S6, S8
   Workplace Skills (See Appendix B): WP1, WP2, WP3, WP5, WP6
5. Review clinical simulation exam format.
   a. Complete clinical simulation.
   b. Discuss exam content areas.
   c. Discuss test taking strategies.
   d. Develop care plans.
   e. Develop case studies.
   f. Critique care plans.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M3, M4, M5, M6, M7, S1, S2, S5, S6, S8
   Workplace Skills (See Appendix B): WP1, WP2, WP3, WP5, WP6

Course Name: Clinical Dental Hygiene I

Course Abbreviation: DHT 1415

Classification: Vocational-Technical Core

Description: Continuation of the principles and techniques learned from previous didactic and preclinical experiences. (5 sch: 1 hr. lecture, 12 hr. clinical)

Prerequisites: None

Competencies and Suggested Objectives:

1. Provide care for clients with minimal periodontal disease.
   a. Prepare and present an individualized treatment plan.
   b. Perform a total oral prophylaxis.
   c. Perform advanced exam and dental hygiene procedures.
   d. Formulate a dental hygiene diagnosis.
   e. Reassess effectiveness of treatment and establish an appropriate recall interval.
   f. Recommend over-the-counter dental products.
   g. Perform dental hygiene assistant and front office procedures.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, M7, S1, S2, S5, S8

   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Oral Histology and Embryology

Course Abbreviation: DHT 1232

Classification: Vocational-Technical Core

Description: The microscopic structure and development of types of cells, tissues, and organs of the human body. Also given is a survey of the elements of embryology emphasizing the area of the head and neck, as related to the development of the dental arches, salivary glands, buccal mucosa, pharynx, and tongue, and incorporating the oral histology of the teetn and gingiva. (2 sch: 2 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Describe the microscopic structure and development of types of cells, tissues, and organs of the human body.
   a. Identify microscopically the components of cells which make up the four primary tissues:
      (1) Epithelium
      (2) Connective tissue
      (3) Muscle
      (4) Nerve tissue

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M1, M2, S1, S8
   Workplace Skills (See Appendix B): WP2, WP6
2. Discuss the elements of embryology emphasizing the area of the head and neck.
   a. Identify histologically the embryonic development and formation of the tissues of the oral cavity:
      (1) Oral mucosa
      (2) Bone and alveolar process
      (3) The teeth
      (4) The periodontal junction
      (5) The dentogingival junction
      (6) The periodontium
      (7) The tongue
      (8) The salivary glands
   b. Identify the various anomalies of the oral cavity occurring during the formation and development of related tissues.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, M1, M2, S1
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Periodontics

Course Abbreviation: DHT 1513

Classification: Vocational-Technical Core

Description: An in-depth study of the supporting structures of the teeth is covered in this course. Also included is a clinical and theoretical understanding of their conditions in good health as well as their reaction to bacterial invasion in disease of varying etiology. The theory of clinical application to the management of the advanced periodontal patient to maintain a healthy and functional dental apparatus is also studied. (3 sch: 3 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Describe the supporting structures of the teeth.
   a. Identify the gross and microscopic structure, physiology, and function of the healthy periodontium as an entity, and in relation to the mouth and body as a whole.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, S1, S8

   Workplace Skills (See Appendix B): WP2, WP6
2. Relate the clinical and theoretical understanding of periodontic disease.
   a. Describe the etiology of periodontal disease as related to the initiating and modifying factors.
   b. Recognize the development of the disease state and the tissues involved.
   c. Recognize clinically the various forms of periodontal disease.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, S1, S2, S8

   Workplace Skills (See Appendix B): WP2, WP6
3. Apply the theory of clinical application to the management of the periodontal client.
   a. Identify the role of the dental hygienist in the treatment of the periodontally involved patient including clinical evaluation, physiotherapy, scaling, curettage, and root planing.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, S1, S2, S8

   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Clinical Dental Hygiene II

Course Abbreviation: DHT 2425

Classification: Vocational-Technical Core

Description: Continuation of the principles and techniques involved in the practice of dental hygiene. Emphasis will be on theoretical background needed to provide advanced clinical skills. Clinical experiences will focus on treatment of clients with moderate to advanced periodontal disease. (5 sch: 1 hr. lecture, 12 hr. clinical)

Pre/Corequisites: Periodontics (DHT 1513) and Clinical Dental Hygiene I (DHT 1415)

Competencies and Suggested Objectives:

1. Provide care for clients with moderate to advanced periodontal disease.
   a. Name the parts of the ultrasonic scalers and air polishers and know the function of each.
   b. List the precautions, indications, and contraindications for using the ultrasonic scaler and air polisher.
   c. Discuss the operating techniques of the ultrasonic scaler and air polisher and demonstrate how to use it/them on clinical patients to efficiently remove calculus and/or stain.
   d. Discuss and demonstrate the daily maintenance of the ultrasonic scaler and air polisher.
   e. Discuss and demonstrate the procedure for unit preparation, client preparation, instrumentation, and post-operative instructions when using ultrasonic instrumentation.
   f. Differentiate between scaling and root planing.
   g. Give reasons to root plane completely.
   h. Demonstrate the correct process of performing a root planing on a clinical client.
   i. Explain the difference between gingival, subgingival, and surgical curettage.
   j. List objectives of curettage.
   k. Discuss and demonstrate the use of subgingival irrigation techniques.
   l. Explain how topical anesthesia is applied prior to curettage.
   m. Describe instrumentation for curettage.
   n. List the effects of instrumentation for curettage.
   o. Explain steps in the healing process and factors that interfere with healing.

Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, M5, M7, S1, S2, S5, S6, S8
Workplace Skills (See Appendix B): WP2, WP3, WP5, WP6

2. Utilize skills in caring for all special needs clients.
   a. Analyze reasons that certain clients experience pain and are anxious about dental treatment and be able to deal with these clients in a manner which instills confidence.
   b. Utilize skills in caring for special needs clients including the geriatric, oral surgery client, client with a fractured jaw, the pregnant client, client during puberty/menopause/adolescence, and the client with a physical or sensory handicap.

Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, S1, S2, S5, S8
Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: Dental Hygiene Materials

Course Abbreviation: DHT 2613

Classification: Vocational-Technical Core

Description: Study of materials used in dentistry, their physical and chemical properties, and proper manipulation as used in the operatory and laboratory. (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

Competencies and Suggested Objectives:

1. Recognize and use selected dental materials within the dental hygienist's scope of practice.
   a. Identify materials used in dentistry.
   b. Demonstrate the ability to manipulate plaster, stone, impression materials, dental amalgam, dental cements, bases, composite resins, and abrasive agents.
   c. Describe the armamentaria and techniques of restorative materials.
   d. Perform allowable procedures which meet the stated criteria as designated by the State of Mississippi Board of Dental Examiners.
   e. Demonstrate conversant knowledge of the various laboratory techniques for full denture, partial denture, fixed bridge, crown, and inlay preparations, fluoride trays, and night guards.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, M5, M7, S1, S2, S5, S6, S6
   Workplace Skills (See Appendix B): WP2, WP3, WP5, WP6

Course Name: General/Oral Pathology

Course Abbreviation: DHT 2233

Classification: Vocational-Technical Core

Description: A study of the etiology and symptomatology of the pathological conditions affecting the head and neck with emphasis on the oral cavity. (3 sch: 3 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Recognize, identify, and treat pathological conditions affecting the head and neck with emphasis on the oral cavity.
   a. Describe the process of disease.
   b. Recognize and identify oral manifestations of disease.
   c. Recognize and identify pathological lesions found in the head and neck with emphasis on the oral cavity.
   d. Prevent disease within the scope and responsibility of the dental hygienist.
   e. Treat disease within the scope and responsibility of the dental hygienist.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M4, S1, S2, S5, S8

   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Dental Pharmacology

Course Abbreviation: DHT 2712

Classification: Vocational-Technical Core

Description: This course gives a basic introduction to drug actions, their mechanisms, and the reactions of the body to these drugs. Special emphasis is given to the drugs used in the modern dental office including emergency procedures. (2 sch: 2 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Discuss the drug laws and usage as related to the dental practice.
   a. Explain the laws governing drug use and procurement with special emphasis placed on those specifically spelled out in the practice acts of Mississippi.
   b. Identify the most reliable sources of drug information.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6
   Workplace Skills (See Appendix B): WP2, WP6
2. Apply knowledge of pharmacology to the practice of dental hygiene.
   a. Describe pharmacological terms, prescriptions, and dosages.
   b. Interpret a drug prescription.
   c. Manage clinical situations involving drugs and drug-related techniques encountered in general dental practice.
   d. Utilize various drugs as adjuncts to dental hygiene procedures that are administered by the dental hygienist.
   e. Demonstrate the ability to take critical drug information from each client, evaluate it, and translate it into how it may or may not alter the course of dental hygiene treatment.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M3, M4, M7, S1, S2, S5, S8
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Clinical Dental Hygiene III

Course Abbreviation: DHT 2436

Classification: Vocational-Technical Core

Description: A culmination of practice, and the clinical procedures and theoretical knowledge needed to provide preventive, interceptive, and definitive dental hygiene treatment. (6 sch: 2 hr. lecture, 12 hr. clinical)

Pre/Corequisites: Clinical Dental Hygiene II (DHT 2425)

Competencies and Suggested Objectives:

1. Provide care for clients with more advanced periodontal disease.
   a. Develop and refine skills in treating moderate to severe periodontal disease.
   b. Develop skills in performing all auxiliary duties in the dental office.
   c. Provide periodontal screening.
   d. Provide preventive dental hygiene services at a pace that closely resembles a typical appointment in a dental practice.
   e. Collect and assess data to arrive at a dental hygiene diagnosis for clients with a more advanced disease.
   f. Develop and implement a treatment plan for clients with more advanced disease.
   g. Provide post-treatment evaluation for clients with advanced disease.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M3, M4, M5, M7, S1, S2, S5, S6, S8
   Workplace Skills (See Appendix B): WP1, WP2, WP3, WP5, WP6

Course Name: Community Dental Health

Course Abbreviation: DHT 2813

Classification: Vocational-Technical Core

Description: This course provides an introduction to preventive dentistry as administered on federal, state, and local levels through official and voluntary health agencies. Supervised field experience gives an opportunity to observe and participate in some phases of community and school dental health programs. (3 sch: 2 hr. lecture, 3 hr. clinical)

Prerequisites: None

Competencies and Suggested Objectives:

1. Assess, plan, implement, and evaluate community oral health programs.
   a. Assess the role of public health agencies in meeting dental needs of a community.
   b. Assess community needs for dental health program feasibility.
   c. Establish and maintain rapport and an exchange of health information with other community health agencies.
   d. Incorporate and know rationale behind public health functions in community dental health.
   e. Plan community dental health programs to meet dental health needs.
   f. Interact with diverse socio-economic strata within the community.
   g. Implement community dental health programs in schools, nursing homes, state hospitals, maternal and childcare facilities, and other known areas of need.
   h. Evaluate program effectiveness via dental indices and statistical data.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M2, M3, M4, M6, M7, S1, S2, S5, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6

July 30, 1996

Course Name: Dental Ethics/Law

Course Abbreviation: DHT 2922

Classification: Vocational-Technical Core

Description: Focus on the ethical and legal aspects of providing dental health care. (2 sch: 2 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Explain the ethical and legal aspects of providing dental health care.
   a. Analyze the basic criteria in ethical judgments and provide a forum for articulating reasons for particular moral choices.
   b. Recognize specific legal terms and their significance to dentistry and dental hygiene as a whole.
   c. Incorporate legalities, in certain circumstances, into meaningful, practical experience for the protection of the dental hygienist, dentist, and patient.
   d. Research and prepare an ethical case study in a form outlined for dealing with an ethical dilemma.
   e. Prepare a case study in dental law with inclusion of ethical concepts. Case preparation includes specific legal references, interviews with dental professionals, and a personal student evaluation.
   f. Transfer each item in the ADHA Code of Ethics into a practical, everyday philosophy, and use sound, ethical judgment in dealing with clients.
   g. Use and analyze rationale for the legalities included within the Mississippi Dental Practice Act and successfully pass a mock Board exam on the MDPA.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, C6, M1, M6, M7

   Workplace Skills (See Appendix B): WP2, WP3, WP6

RELATED VOCATIONAL-TECHNICAL COURSES

Course Name: Fundamentals of Microcomputer Applications

Course Abbreviation: CPT 1113

Classification: Service course; not to be taken by Business and Office and Related Technology students.

Description: This course will introduce information processing concepts to include: word processing, spreadsheet, and database management software. **Service course; not to be taken by Business and Office and Related Technology students.** (3 sch: 2 hr. lecture, 2 hr. lab)

Prerequisites: None

Competencies and Suggested Objectives:

1. Discuss hardware components.
   a. Describe the input, output, and storage elements of the information processing cycle and explain each element.
   b. Describe and discuss the three main classifications of the computer to include micro, mid-range, and mainframes.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, M1, S8
   Workplace Skills (See Appendix B): WP2, WP4, WP6
2. Explain classes of software.
   a. Describe functions of systems software.
   b. Identify widely used software applications.
   c. Discuss various high level languages.
   d. Discuss data organization.

   Related Academic Topics (See Appendix A): C1, C2, C3, C4, C5, M1, S8
   Workplace Skills (See Appendix B): WP2, WP4, WP6
3. Create and print mailable documents.
   a. Develop keyboarding skills.
   b. Prepare letters using full block style.
   c. Use word processing software to produce documents.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, M1, S8
   Workplace Skills (See Appendix B): WP2, WP4, WP6
4. Create and print spreadsheet.
   a. Use spreadsheet software to produce acceptable worksheets.
   b. Generate graphs from worksheets.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, M1, M7, S8
   Workplace Skills (See Appendix B): WP2, WP4, WP6

5. Create and print database files.
   a. Use database software to produce databases.
   b. Edit database records.
   c. Print reports.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, M1, M7, S8
   Workplace Skills (See Appendix B): WP2, WP4, WP6
6. Integrate application information.
   a. Merge a database with a word processing letter.
   b. Merge a spreadsheet with a letter.

   Related Academic Topics (See Appendix A): C1, C2, C4, C5, M1, M7, S8
   Workplace Skills (See Appendix B): WP2, WP4, WP6

RELATED ACADEMIC COURSES

July 30, 1996

Course Name: English Composition I

Course Abbreviation: ENG 1113

Classification: Related Academic

Description: A study of grammar and composition, with emphasis on the sentence and the paragraph. Readings, frequent themes.

July 30, 1996

Course Name: English Composition II

Course Abbreviation: ENG 1123

Classification: Related Academic

Description: A continuation of ENG 1113 with emphasis on the whole composition. Readings, themes, and research paper required.

July 30, 1996

Course Name: Oral Communications (Principles of Speech)

Course Abbreviation: SPT 1113

Classification: Related Academic

Description: Correct and effective English; correct pronunciation and enunciation; breath control; study and practice in making speeches for all occasions, major emphasis on organization of materials; and practice in speaking before a group.

July 30, 1996

Course Name: Anatomy and Physiology I

Course Abbreviation: BIO 1513 or 1514

Classification: Related Academic

Description: A lecture/laboratory course dealing with the anatomical and physiological study of the human body, particularly the molecular, cellular, tissue, organs, and systems. Each system is considered in detail regarding both structure and function.

Course Name: Anatomy and Physiology II

Course Abbreviation: BIO 1523 or 1524

Classification: Related Academic

Description: A lecture/laboratory course of the systems listed but not covered in BIO 1514.

July 30, 1996

Course Name: Microbiology

Course Abbreviation: BIO 2923 or 2924

Classification: Related Academic

Description: This is a lecture/laboratory course providing a survey of the microbes (microscopic organisms) with emphasis and detailed study being placed on those affecting other forms of life, especially man. Laboratory is devoted to basic techniques of microbial study, such as identification, control, morphology, physiology, life cycles, and culture techniques.

July 30, 1996

Course Name: Introduction to Chemistry

Course Abbreviation: CHE 1113

Classification: Related Academic

Description: A course designed to introduce the fundamental concepts of general chemistry and general laboratory techniques. Designed for the non-science major.

Course Name: General Chemistry I

Course Abbreviation: CHE 1213

Classification: Related Academic

Description: Atomic and molecular structure, periodicity and atomic properties, stoichiometry, the male concept, types of solutions, energv-enthalpy.

Corequisites: General Chemistry Laboratory I (CHE 1211) must be scheduled concurrently.

Course Name: General Chemistry Laboratory I

Course Abbreviation: CHE 1211

Classification: Related Academic

Description: Must be taken concurrently in phase with the lecture sequence. Selected experiments to illustrate the principles taught in lecture.

Corequisites: General Chemistry I (CHE 1213) must be scheduled concurrently.

July 30, 1996

Course Name: General Psychology I

Course Abbreviation: PSY 1513

Classification: Related Academic

Description: An introduction to the scientific study of human behavior. Includes history and methods of psychology; growth and development; principles of learning; sensation and perception; thinking; statistics; personality; and intelligence.

Course Name: Introduction to Sociology I

Course Abbreviation: SOC 2113

Classification: Related Academic

Description: Deals with human relationships. Students will receive a synopsis of the whole field of sociology; including the social world, the social and cultural process within this world, and the integration of these processes in relation to the individual, the group, and the institution.

July 30, 1996

Course Name: Principles of Nutrition

Course Abbreviation: HEC 1233

Classification: Related Academic

Description: This course is a study of principles involved in food selection, food preparation, and food buying. Emphasis is placed on nutritive value of foods, planning, preparing, and serving meals under typical home conditions.

Course Name: Nutrition

Course Abbreviation: HEC 1253

Classification: Related Academic

Description: This course is a study of nutrients required for normal growth and applied to the selection of food for ingestion, metabolic process of digestion, assimilation, and absorption.

Course Name: Personal and Community Health I

Course Abbreviation: HPR 1213

Classification: Related Academic

Description: Application of principles and practices of healthful living to the individual and community; major health problems and the mutual responsibilities of home, school, and health agencies.

Course Name: First Aid and CPR

Course Abbreviation: HPR 2213

Classification: Related Academic

Description: Instruction and practice in methods prescribed in the American Red Cross standard and advanced courses. (Does not transfer to some schools as a physical education course.)

July 30, 1996

Course Name: College Algebra

Course Abbreviation: MAT 1313

Classification: Related Academic

Description: This course includes equations, inequalities, functions and graphs, circles, polynomial and rational functions, and systems of equations and inequalities.

Prerequisites: At least two units of high school algebra or MAT 1233

Course Name: Introduction to Computer Concepts

Course Abbreviation: CSC 1113

Classification: Related Academic

Description: A basic course that advances concepts, terminology, and theory of modern computers. It is a survey course. It is not for business, computer science, or engineering students.

SECTION III:

RECOMMENDED TOOLS AND EQUIPMENT

RECOMMENDED TOOLS AND EQUIPMENT FOR POSTSECONDARY DENTAL HYGIENE TECHNOLOGY

CAPITALIZED ITEMS

1. Air Polishing Unit (1 per 5 students)
2. Autoclave, Steam (1 per 5 students)
3. Cart, Stainless Steel with Shelves (1 per student)
4. Cleaner, Ultrasonic (1 per 4 students)
5. Computer w/Monitor (1 per 4 students)
6. Dental Chair (1 per operatory)
7. Dental Light (1 per operatory)
8. Film Developer for Daylight (1 per program)
9. Handpiece, Slow Speed (1 per student)
10. ınstrument/Handpiece Cart (1 per operatory)
11. Intraoral 35 mm Camera (1 per program)
12. Intraoral Video Camera (1 per program)
13. Light Curing Unit (1 per 2 students)
14. Manikin, X-ray, Adult (1 per x-ray room)
15. Manikin, X-ray, Mixed (1 per x-ray room)
16. Mechanical Spatulator (1 per program)
17. Microscope, Phase w/monitor (1 per program)
18. OSHA Compliance System (1 per program)
19. Printer, Laser (1 per 2 computers)
20. Probe, Electronic Periodontal (1 per program)
21. Scaler, Sonic (1 per 5 students)
22. Spore Test Incubators (1 per program)
23. Stool, Operator (1 per operatory)
24. Tank, Oxygen (2 per program)
25. Tester, Pulp Vitality (1 per 5 students)
26. Trimmer Model (1 per 5 students)
27. Ultrasonic Scaler (1 per 3 students)
28. Vacuum Forming Machine (1 per program)
29. Vibrator, Dental Office (1 per program)
30. X-ray Automatic Film Processor (1 per program)
31. X-ray Extra-Oral Machine (1 per program)
32. X-ray Pano Apron (1 per x-ray room)
33. X-ray Processing Tanks (1 per program)
34. X-ray Intra-Oral Unit (1 per x-ray room)
35. X-ray View Box (1 per operatory and 1 per x-ray room)

NON-CAPITALIZED ITEMS

1. Bench Mount (1 per student)

2. Chair Mount (1 per chair)
3. Dentiform (1 per student)
4. Emergency Medical Kit (1 per program)
5. Engine, Bench with Handpiece (1 per 5 students)
6. Film Duplicator (1 per program)
7. Handpiece, High Speed (1 per 3 students)
8. Lathe (1 per 5 students)
9. Machine, Iontophoresis (1 per program)
10. Screen, Extra-Oral Rare Earth (1 per program)
11. Amalgam Instruments (1 per 5 students)
12. Articulator, Hinged (1 per 5 students)
13. Boley Gauge (2 per program)
14. Bowl, Lab Mixing, Medium (1 per student)
15. Bowl, Lab Mixing, Large (1 per student)
16. Burners (2 per program)
17. Carver, Roach (2 per program)
18. Cassette, Instrument (2 per student)
19. Eye Wash (1 per lab)
20. Holder, Cotton Roll (1 per operatory)
21. Irrigator, Intra-Oral (1 per 5 students)
22. Knife, Lab (1 per student)
23. Mirror, Mouth (2 per student)
24. Mirror, Hand (1 per student)
25. Plastic Sealer for Autoclave Bags
26. Pressure Indicator, Probing/Sealing Techniques
27. Prophy Angle (1 per student)
28. Shield, Protective (1 per student)
29. Slab, Glass Mixing (1 per 3 students)
30. Spatula, Plaster (1 per student)
31. Sphygmomanometer (1 per 2 students and 1 per operatory)
32. Spill Kit (1 per program)
33. Splash Hood with Lucite Shield (1 per lathe)
34. Stethoscope (1 per student)
35. Syringe, Aspirating (1 per 5 students)
36. Syringe, Irrigating (1 per student)
37. Thermometer, Digital (1 per operatory)
38. Tray, Impression, Perforated (Maxillary & Mandicular), Small Set (2 per program)
39. Tray, Impression, Perforated (Maxillary & Mandicular), Medium Set (2 per program)
40. Tray, Impression, Perforated (Maxillary & Mandicular), Large Set (2 per program)
41. Ultrasonic Insert #1 (1 per 3 students)
42. Ultrasonic Insert #3 (1 per 3 students)

43. Ultrasonic Insert #7 (1 per 3 students)
44. Ultrasonic Insert #10 (1 per 3 students)
45. Ultrasonic Insert EWPP (1 per 3 students)
46. Ultrasonic Insert PzR (1 per 3 students)
47. Ultrasonic Insert PzL (1 per 3 students)
48. X-ray Apron w/Thyroid Collar, Adult (1 per x-ray room and 1 per program)
49. X-ray Apron w/Thyroid Collar, Pediatric (1 per x-ray room and 1 per program)
50. X-ray Darkroom Light (1 per darkroom)
51. X-ray Film Hanger (1 per student)
52. X-ray Film Holders (1 per 2 students)
53. X-ray PID, 16" (1 per program)
54. X-ray Thermometer, Floating (1 per program)

INSTRUCTIONAL AIDS

1. Model, 2.5 x Natural Size Teeth Model (1 per 5 students)
2. Model, Developmental, Newborn (1 per 5 students)
3. Model, Developmental, Child/Adolescent (1 per 5 students)
4. Model, Developmental, Adult (1 per 5 students)
5. Nitrous Oxide Machine (1 per 5 students)
6. Skeleton (1 per program)
7. Skull, Plastic (1 per 2 students)
8. Skull, Human (1 per 2 students)
9. Skull, Sagittally Sectioned (1 per 2 students)
10. Slide Projector (2 per program)
11. Screen, Projector (2 per program)
12. Model, Malocclusion (1 per 5 students)
13. Stethoscope, Teaching (1 per program)

SUGGESTED REFERENCES (1 per program except where otherwise noted):

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Ibsen, O.A.C. Oral Pathology for the Dental Hygienist. W.B. Saunders. 1992.
Ibsen/Phelan. Essentials of Dental Radiography for Dental Assistants and Hygienists (4th ed.). Appleton and Lange.
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Jenhouse/Gartner. Oral Histology and Embryology.
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VIDEOS: (1 per program unless otherwise noted)

OSHA Guidelines
Polishing
Ultrasonic Scaling

Sealouts
Root Planing
Fluoride
Extra-oral
Vital Signs
Scaling
Sharpening
Patient Operator Position
Records
Periodontal Charting
Radiology Techniques
Managing Implants

SOFTWARE: (1 per program unless otherwise noted)

Board Review
Record Keeping

SLIDE SETS: (1 per program unless otherwise noted)

Atlas of Histology
Basic Human Histology Set
Oral Cavity
Teeth and Their Function
Oral Pathology for the Dental Hygienist

APPENDIX A:

RELATED ACADEMIC TOPICS

APPENDIX A

RELATED ACADEMIC TOPICS FOR COMMUNICATIONS

C1 Interpret written material.
C2 Interpret visual materials (maps, charts, graphs, tables, etc.).
C3 Listen, comprehend, and take appropriate actions.
C4 Access, organize, and evaluate information.
C5 Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.
C6 Communicate ideas and information effectively using various oral and written forms for a variety of audiences and purposes.

EXPANDED TOPICS FOR COMMUNICATIONS

TOPIC C1: Interpret written material.

C1.01 Read and follow complex written directions.
C1.02 Recognize common words and meanings associated with a variety of occupations.
C1.03 Adjust reading strategy to purpose and type of reading.
C1.04 Use sections of books and reference sources to obtain information.
C1.05 Compare information from multiple sources and check validity.
C1.06 Interpret items and abbreviations used in multiple forms.
C1.07 Interpret short notes, memos, and letters.
C1.08 Comprehend technical words and concepts.
C1.09 Use various reading techniques depending on purpose for reading.
C1.10 Find, read, understand, and use information from printed matter or electronic sources.

TOPIC C2: Interpret visual materials (maps, charts, graphs, tables, etc.).

C2.01 Use visuals in written and in oral presentations.
C2.02 Recognize visual cues to meaning (layout, typography, etc.).
C2.03 Interpret and apply information using visual materials.

TOPIC C3: Listen, comprehend, and take appropriate action.

C3.01 Identify and evaluate orally-presented messages according to purpose.
C3.02 Recognize barriers to effective listening.
C3.03 Recognize how voice inflection changes meaning.
C3.04 Identify speaker signals requiring a response and respond accordingly.
C3.05 Listen attentively and take accurate notes.
C3.06 Use telephone to receive information.

C3.07 Analyze and distinguish information from formal and informal oral presentations.

TOPIC C4: Access, organize, and evaluate information.

C4.01 Distinguish fact from opinion.
C4.02 Use various print and non-print sources for specialized information.
C4.03 Interpret and distinguish between literal and figurative meaning.
C4.04 Interpret written or oral communication in relation to context and writer's point of view.
C4.05 Use relevant sources to gather information for written or oral communication.

TOPIC C5: Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.

C5.01 Select appropriate words for communication needs.
C5.02 Use reading, writing, listening, and speaking skills to solve problems.
C5.03 Compose inquiries and requests.
C5.04 Write persuasive letters and memos.
C5.05 Edit written reports, letters, memos, and short notes for clarity, correct grammar, and effective sentences.
C5.06 Write logical and understandable statements, phrases, or sentences for filling out forms, for correspondence or reports.
C5.07 Write directions or summaries of processes, mechanisms, events, or concepts.
C5.08 Select and use appropriate formats for presenting reports.
C5.09 Convey information to audiences in writing.
C5.10 Compose technical reports and correspondence that meet accepted standards for written communications.

TOPIC C6: Communicate ideas and information using oral and written forms for a variety of audiences and purposes.

C6.01 Give complex oral instructions.
C6.02 Describe a business or industrial process/mechanism.
C6.03 Participate effectively in group discussions and decision making.
C6.04 Produce effective oral messages utilizing different media.
C6.05 Explore ideas orally with partners.
C6.06 Participate in conversations by volunteering information when appropriate and asking relevant questions when appropriate.
C6.07 Restate or paraphrase a conversation to confirm one's own understanding.
C6.08 Gather and provide information utilizing different media.

C6.09 Prepare and deliver persuasive, descriptive, and demonstrative oral presentations.

RELATED ACADEMIC TOPICS FOR MATHEMATICS

M1 Relate number relationships, number systems, and number theory.
M2 Explore patterns and functions.
M3 Explore algebraic concepts and processes.
M4 Explore the concepts of measurement.
M5 Explore the geometry of one-, two-, and three-dimensions.
M6 Explore concepts of statistics and probability in real world situations.
M7 Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

EXPANDED TOPICS FOR MATHEMATICS

TOPIC M1: Relate number relationships, number systems, and number theory.

M1.01 Understand, represent, and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, and scientific notation) in real world and mathematical problem situations.
M1.02 Develop number sense for whole numbers, fractions, decimals, integers, and rational numbers.
M1.03 Understand and apply ratios, proportions, and percents in a wide variety of situations.
M1.04 Investigate relationships among fractions, decimals, and percents.
M1.05 Compute with whole numbers, fractions, decimals, integers, and rational numbers.
M1.06 Develop, analyze, and explain procedures for computation and techniques for estimations.
M1.07 Select and use an appropriate method for computing from among mental arithmetic, paper-and-pencil, calculator, and computer methods.
M1.08 Use computation, estimation, and proportions to solve problems.
M1.09 Use estimation to check the reasonableness of results.

TOPIC M2: Explore patterns and functions.

M2.01 Describe, extend, analyze, and create a wide variety of patterns.
M2.02 Describe and represent relationships with tables, graphs, and rules.
M2.03 Analyze functional relationships to explain how a change in one quantity results in a change in another.
M2.04 Use patterns and functions to represent and solve problems.
M2.05 Explore problems and describe results using graphical, numerical, physical, algebraic, and verbal mathematical models or representations.

M2.06 Use a mathematical idea to further their understanding of other mathematical ideas.

M2.07 Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as art, music, and business.

TOPIC M3: Explore algebraic concepts and processes.

M3.01 Represent situations and explore the interrelationships of number patterns with tables, graphs, verbal rules, and equations.

M3.02 Analyze tables and graphs to identify properties and relationships and to interpret expressions and equations.

M3.03 Apply algebraic methods to solve a variety of real world and mathematical problems.

TOPIC M4: Explore the concepts of measurement.

M4.01 Estimate, make, and use measurements to describe and compare phenomena.

M4.02 Select appropriate units and tools to measure to the degree of accuracy required in a particular situation.

M4.03 Extend understanding of the concepts of perimeter, area, volume, angle measure, capacity, and weight and mass.

M4.04 Understand and apply reasoning processes, with special attention to spatial reasoning and reasoning with proportions and graphs.

TOPIC M5: Explore the geometry of one-, two-, and three-dimensions.

M5.01 Identify, describe, compare, and classify geometric figures.

M5.02 Visualize and represent geometric figures with special attention to developing spatial sense.

M5.03 Explore transformations of geometric figures.

M5.04 Understand and apply geometric properties and relationships.

M5.05 Classify figures in terms of congruence and similarity and apply these relationships.

TOPIC M6: Explore the concepts of statistics and probability in real world situations.

M6.01 Systematically collect, organize, and describe data.

M6.02 Construct, read, and interpret tables, charts, and graphs.

M6.03 Develop an appreciation for statistical methods as powerful means for decision making.

M6.04 Make predictions that are based on exponential or theoretical probabilities.

M6.05 Develop an appreciation for the pervasive use of probability in the real world.

TOPIC M7: Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

M7.01 Use computers and/or calculators to process information for all mathematical situations.
M7.02 Use problem-solving approaches to investigate and understand mathematical content.
M7.03 Formulate problems from situations within and outside mathematics.
M7.04 Generalize solutions and strategies to new problem situations.

RELATED ACADEMIC TOPICS FOR SCIENCE

S1 Explain the Anatomy and Physiology of the human body.
S2 Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.
S3 Relate the nine major phyla of the kingdom animalia according to morphology, anatomy, and physiology.
S4 Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.
S5 Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.
S6 Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.
S7 Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance, population genetics, the structure and function of DNA, and current applications of DNA technology.
S8 Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

EXPANDED TOPICS FOR SCIENCE

TOPIC S1: Explain the Anatomy and Physiology of the human body.

S1.01 Recognize common terminology and meanings.
S1.02 Explore the relationship of the cell to more complex systems within the body.

S1.03 Summarize the functional anatomy of all the major body systems.
S1.04 Relate the physiology of the major body systems to its corresponding anatomy.
S1.05 Compare and contrast disease transmission and treatment within each organ system.
S1.06 Explore the usage of medical technology as related to human organs and organ systems.
S1.07 Explain the chemical composition of body tissue.

TOPIC S2: Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.

S2.01 Identify the major types and structures of plants, viruses, monera, algae protista, and fungi.
S2.02 Explain sexual and asexual reproduction.
S2.03 Describe the ecological importance of plants as related to the environment.
S2.04 Analyze the physical chemical and behavioral process of a plant.

TOPIC S3: Relate the nine major phyla of the kingdom animalia according to morphology, anatomy, and physiology.

S3.01 Explain the morphology, anatomy, and physiology of animals.
S3.02 Describe the characteristics, behaviors, and habitats of selected animals.

TOPIC S4: Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.

S4.01 Examine minerals and their identification, products of the rock cycle, byproducts of weathering, and the effects of erosion.
S4.02 Relate the Hydrologic Cycle to include groundwater its zones, movement, and composition; surface water systems, deposits, and runoff.
S4.03 Consider the effects of weather and climate on the environment.
S4.04 Examine the composition of seawater; wave, tides, and currents; organisms, environment, and production of food; energy, food and mineral resources of the oceans.

TOPIC S5: Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.

S5.01 Examine the science of chemistry to include the nature of matter, symbols, formulas and nomenclature, and chemical equations.

S5.02 Identify chemical reactions including precipitation, acids-bases, and reduction-oxidation.
S5.03 Explore the fundamentals of chemical bonding and principles of equilibrium.
S5.04 Relate the behavior of gases.
S5.05 Investigate the structure, reactions, and uses of organic compounds; and investigate nuclear chemistry and radiochemistry.

TOPIC S6: Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.

S6.01 Examine fundamentals of motion of physical bodies and physical dynamics.
S6.02 Explore the concepts and relationships among work, power, and energy.
S6.03 Explore principles, characteristics, and properties of electricity, magnetism, light energy, thermal energy, and wave energy.
S6.04 Identify principles of modern physics related to nuclear physics.

TOPIC S7: Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance; population genetics, the structure and function of DNA, and current applications of DNA technology.

S7.01 Examine principles, techniques, and patterns of traits and inheritance in organisms.
S7.02 Apply the concept of population genetics to both microbial and multicellular organism.
S7.03 Identify the structure and function of DNA and the uses of DNA technology in science, industry, and society.

TOPIC S8: Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

S8.01 Apply the components of scientific processes and methods in classroom and laboratory investigations.
S8.02 Observe and practice safe procedures in the classroom and laboratory.
S8.03 Demonstrate proper use and care for scientific equipment.
S8.04 Investigate science careers, and advances in technology.
S8.05 Communicate results of scientific investigations in oral, written, and graphic form.

APPENDIX B:

WORKPLACE SKILLS

APPENDIX B
WORKPLACE SKILLS FOR THE 21ST CENTURY

WP1 Allocates resources (time, money, materials and facilities, and human resources).

WP2 Acquires, evaluates, organizes and maintains, and interprets/communicates information, including the use of computers.

WP3 Practices interpersonal skills related to careers including team member participation, teaching other people, serving clients/customers, exercising leadership, negotiation, and working with culturally diverse.

WP4 Applies systems concept including basic understanding, monitoring and correction system performance, and designing and improving systems.

WP5 Selects, applies, and maintains/troubleshoots technology.

WP6 Employs thinking skills including creative thinking, decision making, problem solving, reasoning, and knowing how to learn.

APPENDIX C:

STUDENT COMPETENCY PROFILE

STUDENT COMPETENCY PROFILE

Student: _____

This record is intended to serve as a method of noting student achievement of the competencies in each course. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the program.

In the blank before each competency, place the date on which the student mastered the competency.

Fundamentals of Dental Hygiene (DHT 1115)

_____ 1. Discuss the history, philosophy, and theories relevant to the dental hygiene profession.
_____ 2. Develop psychomotor skills necessary for the delivery of dental hygiene services.
_____ 3. Recognize basic etiology of dental disease, related treatment, and preventive measures.

Dental Anatomy (DHT 1212)

_____ 1. Explain dentition and its related structures.

Head and Neck Anatomy (DHT 1222)

_____ 1. Explain the skeletal, muscular, vascular, and neural features of the face, head, and neck.

Dental Radiology (DHT 1314)

_____ 1. Explain and apply the theory and scope of radiology as related to dental hygiene.

Dental Hygiene Seminar I, II, III, IV (DHT 1911, DHT 1921, DHT 2931, DHT 2941)

_____ 1. Provide fundamental knowledge and skills needed to manage dental office emergencies.
_____ 2. Develop leadership skills.
_____ 3. Develop knowledge of the different disciplines of dentistry.
_____ 4. Review written registry exam format.
_____ 5. Review clinical simulation exam format.

Clinical Dental Hygiene I (DHT 1415)

_____ 1. Provide care for clients with minimal periodontal disease.

Oral Histology and Embryology (DHT 1232)

_____ 1. Describe the microscopic structure and development of types of cells, tissues, and organs of the human body.
_____ 2. Discuss the elements of embryology emphasizing the area of the head and neck.

Periodontics (DHT 1513)

_____ 1. Describe the supporting structures of the teeth.
_____ 2. Relate the clinical and theoretical understanding of periodontic disease.
_____ 3. Apply the theory of clinical application to the management of the periodontal client.

Clinical Dental Hygiene II (DHT 2425)

_____ 1. Provide care for clients with moderate to advanced periodontal disease.
_____ 2. Utilize skills in caring for all special needs clients.

Dental Hygiene Materials (DHT 2613)

_____ 1. Recognize and use selected dental materials within the dental hygienist's scope of practice.

General/Oral Pathology (DHT 2233)

_____ 1. Recognize, identify, and treat pathological conditions affecting the head and neck with emphasis on the oral cavity.

Dental Pharmacology (DHT 2712)

_____ 1. Discuss the drug laws and usage as related to the dental practice.
_____ 2. Apply knowledge of pharmacology to the practice of dental hygiene.

Clinical Dental Hygiene III (DHT 2435)

_____ 1. Provide care for clients with more advanced periodontal disease.

Community Dental Health (DHT 2813)

_____ 1. Assess, plan, implement, and evaluate community oral health programs.

Dental Ethics/Law (DHT 2922)*

_____ 1. Explain the ethical and legal aspects of providing dental health care.